

AMENDMENT TO THE CLAIMS:

Listing of claims:

1. (Currently Amended) A method of performing instrument tracking on an image comprising:

collecting a plurality of images;

computing at least one of a position and orientation of at least one instrument for said plurality of images; and

automatically displaying each image in said collected plurality of images in an image by image manner ~~at an acceptable rate of speed~~ to create an animation, wherein said at least one position and orientation of said at least one instrument is projected on each said image.
2. (Previously Presented) The method of Claim 1 wherein said plurality of images comprise a plurality of 2D fluoroscopic images.
3. (Previously Presented) The method of Claim 1 comprising continuously presenting the image by image animation using a display.
4. (Cancelled)
5. (Previously Presented) The method of Claim 1 comprising calibrating at least one image of said collected plurality of images such that said at least one position and orientation of said at least one image may be accurately displayed.
6. (Original) The method of Claim 5 comprising selecting at least one calibrated image to be a current image.

7. (Original) The method of Claim 6 comprising computing said at least one position and orientation for said at least one instrument for said current image.

8. (Previously Presented) The method of Claim 1 comprising collecting said plurality of images using at least one moveable collection device.

9. (Original) The method of Claim 8 wherein said moveable collection device comprises a C-arm coupled to an imaging device.

10. (Previously Presented) A method of performing instrument tracking on a series of images using an imaging device, comprising:

collecting a series of 2D images;

calibrating said series of 2D images such that at least one of a position and orientation of at least one instrument may be accurately displayed in each image of said series of images;

selecting at least one image of said series of images to be a current image;

computing said at least one position and orientation of said at least one instrument for said current image;

projecting said at least one position and orientation within said current image;

displaying said current image; and

automatically repeating said selecting, computing, projecting, and displaying steps to create an animation using a sequential image by image presentation through said series of 2D images.

11. (Original) The method of Claim 10 comprising collecting said series of 2D images using a collection device that moves.

12. (Original) The method of Claim 11, wherein said collection device comprises a C-arm coupled to the imaging device.

13. (Previously Presented) The method of Claim 10 wherein said series of 2D images comprise a series of 2D fluoroscopic images.

14. (Previously Presented) The method of Claim 10 comprising continually using said sequential image by image presentation through said series of 2D images in a display.

15. (Previously Presented) The method of Claim 14 comprising projecting said at least one position and orientation of said at least one instrument into at least one image of said series of 2D images.

16. (Original) The method of Claim 10 comprising incrementing at least said current image.

17. (Original) The method of Claim 16 comprising recomputing said at least one position and orientation of said at least one instrument.

18. (Previously Presented) An apparatus for performing instrument tracking on a series of images, the apparatus comprising:

a collection device that moves and is adapted to collect a series of images;

a processing device communicating with at least said collection device and adapted to create an animation by automatically and continuously presenting an image by image display of said series of images including at least one of a position and orientation of at least one instrument and at least one image of said at least one instrument located at said at least one of a position and orientation; and

an output communicating with at least said processing device and adapted to display said image by image series of images.

19. (Original) The apparatus of Claim 18 wherein said collection device that moves comprises at least one C-arm.

20. (Previously Presented) The apparatus of Claim 18 wherein said collection device that moves comprises at least one transmitter device and at least one detector device.